

Application No. 10/789,000
Response dated May 10, 2006
Reply to Office Action of February 22, 2006

REMARKS/ARGUMENTS

Claims 1-9 remain in this application, and Claims 10-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a non-elected invention.

In the Office Action mailed February 22, 2006, the 35 U.S.C. § 103 rejection of claims 1-9 over Foster et al (U.S. Patent No. 6,616,804) in view of Larson et al (U.S. Patent No. 3,933,561) has been withdrawn due to Applicants' arguments in the response filed December 2, 2005.

Claims 1-9 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as their invention. As correctly interpreted by the Examiner, the term "cast" in claim 1 does mean a tile made by a casting process and has the same meaning as stating "said tile made by a casting process". The term "cast" is a significant limitation on the subject matter of claims 1-9 and distinguishes the claimed ceiling tiles from tiles made by a water-felting or wet-laid process and from ceiling tiles made from a dry-formed web. The term "cast" would be clearly understood by persons skilled in the art as tiles made by a casting process, which process is set forth in claims 10-14 which have been withdrawn from further consideration, over applicants traverse.

As disclosed in the Baig reference (U.S. Patent No. 6,443,256 which is the patent issuing from U.S. Patent Application Publication No. 2002/0139611) the manufacture of ceiling tiles by a water-felting process using a Fourdrinier or Oliver mat forming machine is well known in the art. The Baig reference also discloses that ceiling tiles can be made by an alternative process which it refers to as a wet pulp molding or cast process. Applicants are claiming tiles made by the wet pulp molding or cast process, whereas Baig is claiming ceiling tiles made by a water-felting process.

The Forry et al reference (U.S. Patent No. 4,585,685) also discloses that wet-forming procedures for producing acoustical tiles are well known in the art (i.e. water-felting processes), but Forry et al is claiming ceiling tiles made by a dry formed web. The Forry et al ceiling tiles, though coated with aggregate particles, are clearly different from Applicants' cast ceiling tiles.

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Claims 1, 2, 4-7 and 9 have been rejected under 35 U.S.C. 102 (b) as being anticipated by Forry et al (U.S. Patent No. 4,585,685). The Examiner states that the term "an abuse-resistant, cast ceiling tile" set forth in claims 1-9 is deemed to be a statement with regard to the intended use and is not further limiting insofar as the structure of the product is concerned. However, abuse resistance is definitely a property of the ceiling tile product, and the fact that Applicants are claiming a cast ceiling tile does result in a structural difference compared to the dry-formed web of Forry et al. A person skilled in the ceiling tile art could easily distinguish between the dry-formed web of Forry et al and Applicants' cast ceiling tile.

As disclosed in Applicants' patent application (page 1, line 26 to page 2, line 9), Forry et al disclose applying aggregate material to the surface of a dry-formed web and embedding the aggregate material into the web by a consolidation procedure. However, Example 1 of the Forry et al patent discloses preparing a ceiling tile by a wet-laid process using a Fourdrinier apparatus. A dry layer of perlite was applied to the wet mat, passed through a press section, and then dried. Upon testing this sheet material for acoustical properties, Forry et al concluded that the acoustical performance was unacceptable. This disclosure would lead a person skilled in the ceiling tile art away from applying aggregate material to a wet tile mat made by a wet-laid process. In contrast thereto, and unobvious to a person skilled in the ceiling tile art, Applicants have discovered that if the aggregate material is applied to a wet tile mat made by a casting process, the resulting ceiling tile has excellent acoustical properties and also has excellent abuse resistance. It is also believed that by using the molded or cast process to form the wet mat to which the aggregate material is applied, provides better and stronger bonding between the mat and the aggregate material compared to what can be achieved using a dry-formed web or a wet-laid process to form the tile mat.

Claims 1-9 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Baig (the U.S. Patent Application Publication No. 2002/0139611 issued as U.S. Patent No. 6,443,256). Baig discloses an acoustical ceiling tile using a water-felting process (not a casting process) to form both the base mat layer and the fiber-rich surface layer. In the Baig reference, the only disclosure that could be interpreted as applying an aggregate

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material to the surface of a ceiling tile appears in Example 9 wherein it states that "coarse calcium carbonate" was spray coated onto the mineral wool rich surface. There is no disclosure as to what is meant by the term "coarse". Baig does not disclose that the calcium carbonate must have an average particle mean diameter of at least about 1000 microns, which Applicants have found to be critical in providing abuse resistance. Even though Baig discloses that the calcium carbonate was "coarse", it is noted that it was spray applied, and therefore, it is believed that the calcium carbonate Baig used had an average particle mean diameter less than 1,000 microns.

Furthermore, Baig discloses in Example 9 that after applying the calcium carbonate, the tiles were spray painted with standard acoustical tile paint and were dried. This indicates that Baig was not using the calcium carbonate particles to provide abuse or impact resistance. In any event, the Baig ceiling tile is not a cast ceiling tile.

In view of the Examiner's earlier restriction requirement, applicants retain the right to present claims 10-14 in a division application.

Applicants respectfully request that a Notice of Allowance of claims 1-9 be issued in this case.

Respectfully submitted,

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